

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Development of Nationwide Broadband)	WC Docket No. 07-38
Data to Evaluate Reasonable and Timely)	
Deployment of Advanced Services to All)	
Americans, Improvement of Wireless)	
Broadband Subscribership Data, and)	
Development of Data on Interconnected)	
Voice over Internet Protocol (VoIP))	
Subscribership		

COMMENTS OF BROADBANDCENSUS.COM

IN RESPONSE TO THE FURTHER NOTICE OF PROPOSED RULEMAKING

I. INTRODUCTION

BroadbandCensus.com respectfully submits these comments in response to the Further Notice of Proposed Rulemaking (“Further Notice”)¹, released June 12, 2008, in the above-captioned proceeding of the Federal Communications Commission (“Commission”). We respond to the invitation for comment on Section IV(B) of the Further Notice.²

¹ In re: Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscribership Data, and Development of Data on Interconnected Voice over Internet Protocol (VoIP) Subscribership, WC Docket No. 07-38, Report and Order and Further Notice of Proposed Rulemaking, FCC 08-89 (June 12, 2008) (“Further Notice”).

² Further Notice, ¶ 34-35.

BroadbandCensus.com is a new, free web service that allows the public to share and learn information about where individual broadband companies provide service. In taking the Broadband Census, consumers enter their ZIP+4 codes, identify their carriers, rate their services and conduct a free broadband speed test. Doing so enables them to compare their actual internet speeds against what their carriers promise.³ They are also invited to make comments, which are posted on the web site of BroadbandCensus.com, about the service quality of their broadband provider.

BroadbandCensus.com is a consumer-focused service with an aim to better inform the public and policy-makers with information and news about broadband availability, competition, speeds, service and prices. The site is freely offered under a Creative Commons Attribution-Noncommercial License, allowing anyone to make non-commercial use of the site, as long as they attribute the contents to BroadbandCensus.com. In doing so, countries, states, counties and cities may republish the information on their own web sites.

BroadbandCensus.com has a keen interest in the issue of broadband data.

BroadbandCensus.com is produced by Broadband Census LLC

("BroadbandCensus.com"), a Limited Liability Company organized the Commonwealth of Virginia. We are independent of all internet providers.

BroadbandCensus.com receives no funding from carriers. More information about the organizations providing financial or technical support to BroadbandCensus.com

³ We currently use the Network Diagnostic Tool (NDT), open-source software under active development by the research consortium Internet2, as our beta speed test. We are well aware of the fact that different speed tests yield different results, and BroadbandCensus.com seeks the maximum possible disclosure about the methodologies deployed in the use of internet speed tests.

is available in a prominent location on our web site.⁴

BroadbandCensus.com takes no position on telecommunications policy controversies, such as the issues surrounding network neutrality, or the universal service fund. However, we do firmly believe in the value of transparency, both as a means to oversee the government, and to provide consumers with recourse vis-à-vis their broadband carriers. As with other journalistic organizations, such as the Associated Press (which often seeks to obtain the release of government information under the Freedom of Information Act), we believe that the public is served by the greatest possible disclosure. For this reason, we offer these comments for your consideration.

Following these introductory remarks, our comments are organized as follows: section II briefly considers the significance of the Internet as a means for collaboration and data-sharing, with specific reference to broadband policy; section III responds directly to the Commission's questions in the Further Notice; section IV discusses the implications of proposed federal legislation upon the Further Notice; followed by a conclusion in section V.

II. THE INTERNET, 'CROWDSOURCING' AND TRANSPARENCY

In this section, we briefly consider the significance of broadband data, the importance of transparency, and call attention to a specific instance in which the

⁴ One of the organizations providing technical support to BroadbandCensus.com is the eCorridors Program of Virginia Tech, which has pioneered the field of community broadband mapping from internet users. The complete list of supporters is available at <http://broadbandcensus.com/home/supporters>.

nation of Ireland has publicly deployed broadband data on a government web site.

Much could and should be written about the way that the Internet enables individuals – friends and strangers – to collaborate seamlessly. Further, of the most important functions of the Internet is to cast sunlight upon the operations of government and other entities. BroadbandCensus.com is an exercise in harnessing the power of “crowdsourcing” – bringing disparate individuals together to engage online in a common purpose. That purpose is to learn and share information about their internet options. As with Wikipedia, BroadbandCensus.com is a natural extension of the ability of individuals to collaborate about the Internet, using the Internet.

Understanding the availability of broadband within a particular ZIP code, census tract or ZIP+4 code is one important purpose for this information-sharing. But there are other vitally important purposes, too: understanding competition in the broadband marketplace, understanding the speeds and service quality of broadband providers, and understanding and comparing internet prices. In the realm of broadband policy, attention is increasingly focusing not only on broadband penetration, but on available speeds, bandwidth caps, and cost per Megabit or Gigabit of data.

Speaking at the Commission’s hearing on “Broadband Network Management Practices” on February 25, 2008⁵, Chairman Kevin Martin stated that for network

⁵ “Broadband Network Management Practices,” En Banc Public Hearing, Harvard Law School, Cambridge, Mass., February 24, 2008.

management “practices to be reasonable, they must be conducted in a transparent way. Consumers need to know” what aspects of their Internet connections will or won’t be affected by such practices, the Chairman said.⁶ Consumers also need to know about the speeds, services and prices offered by the carriers, the Chairman said.⁷

We urge you not neglect the importance of broadband competition, broadband speeds and broadband prices as the Commission considers all the issues surrounding the Further Notice.

Also, BroadbandCensus.com commends to the Commission the “Broadband Information” web site of the Department of Communications, Energy and Natural Resources of the Government of Ireland.⁸ Although BroadbandCensus.com has no official connection with this site, we urge you to examine it as an example of what another nation is doing in the realm of broadband mapping. “Broadband Information” includes a listing, in Ireland, of all available broadband services, promised download and upload speeds, contention ratios, and monthly subscription fees. The site includes a fully searchable map and includes a web site and e-mail contact for each carrier.⁹

⁶ “Martin: Greater Transparency by Broadband Providers,” DrewClark.com – The Politics of Telecom, Media and Technology, February 25, 2008, <http://www.drewclark.com/martin-greater-transparency-by-broadband-providers>.

⁷ *Id.*

⁸ <http://www.broadband.gov.ie/>.

⁹ The site notes: “Welcome to Broadband.gov.ie. This website is for information purposes only. It is intended to provide information on broadband to the general public. You will find information on what broadband is, its benefits, where it is available, and how much it costs. The information on broadband availability and pricing on this website is provided by the broadband operators. The Department compiles this information in order to enhance public awareness of broadband services.” See <http://www.broadband.gov.ie/>.

III. RESPONSES TO THE COMMISSION'S SPECIFIC QUESTIONS

The Commission asks a number of specific questions in the Further Notice. Before responding to those questions, however, BroadbandCensus.com invites the FCC to revise its current policies with respect to the non-disclosure of public broadband information. In particular, we invite the Commission to make data public from the FCC's existing Form 477. We also invite you to make that data public which will be collected from the new version of the Form 477.¹⁰ In light of these recommended disclosures, we address the Commission's specific questions.

With regard to the existing Form 477, there is a great deal of data encompassed by the form that cannot, by any reasonable stretch of the imagination, be considered competitively sensitive. We urge the Commission to publicly disclose each of the 5-digit ZIP codes in which broadband service providers declare that they offer service. The fact that a broadband company offers service in particular ZIP code is well known to the individual customer of that service. This information is also used in marketing broadband services to individuals through web sites, and through other forms of communications. For many years, the Commission has required the disclosure of the local areas in which broadcasters, cable operators, and telephone carriers offer service. For similar reasons, we also urge the Commission to disclose, for each 5-digit ZIP code in which each broadband service provider declares that

¹⁰ Further Notice, ¶¶10-16.

they offer service, the technology type or types through which these providers declare that they offer broadband service.¹¹

With regard to the new information that will be required on Form 477 beginning with the data collection beginning on March 2009¹², the Commission will require broadband service providers to include information about the census tracts in which they offer service, and the technology types deployed within each census tract. The size of an average census tract is not extraordinarily different from the size of the average ZIP code. There are estimated 61,000 census tracts in the United States¹³, and an estimated 41,000 ZIP codes, with about 10,000 of these non-spatial ZIP codes.¹⁴ We urge the Commission to disclose this information, once collected, because there is not a significant difference between the disclosure of such company data within a ZIP code and the disclosure of such company data within a census tract.

For the first time, the Commission will seek to obtain the promised upload and promised download speeds of individual broadband carriers, again by census tract. This information is vital for consumers to be able to compare their speeds against the promised speeds by, for example, taking a speed test.¹⁵ As with information about the location of service offered, and the technology type deployed, promised

¹¹ The current Form 477 includes a requirement that broadband service providers estimate the percentage of connections that carry information at transfer rates within five different speed tiers. The Further Notice changes the number of speed tiers, and extends the reporting requirement to the census tract level.

¹² Further Notice, ¶ 14.

¹³ See Ex Parte Filing of Eric N. Einhorn, Windstream, to Marlene H. Dorch, Secretary, FCC, WC Docket No. 07-38, at 2, filed March 11, 2008 (“Windstream Ex Parte”).

¹⁴ *Id.*

¹⁵ Any speed test will allow the individual to compare their actual with their promised speeds. Consumers who use the speed test on BroadbandCensus.com share this information with subsequent users of BroadbandCensus.com, which facilitates greater knowledge and information-sharing about the reliability of individual carriers’ promised speeds.

upload and download speeds are public information. As the Commission has required the collection of this information, BroadbandCensus.com invites the Commission to publicly disclose this information, too.

In the Further Notice, the Commission asks a number of specific questions. To summarize and recap these questions:

1. The Commission seeks comment on the adoption of a national broadband mapping program designed to “creat[e] a highly detailed map of broadband availability nationwide.”¹⁶
2. The Commission seeks comment on how such a program “can provide useful information to other broadband initiatives undertaken” by other federal agencies, state agencies, and private companies, such as Connected Nation, Inc.¹⁷
3. The Commission seeks comment on potential collaboration with the Department of Agriculture’s Rural Utilities Service.¹⁸
4. The Commission seeks comment on the Commission’s tentative conclusion to require the “collect[ion of] information that providers use to respond to prospective customers to determine on an address-by-address basis whether service is available.”¹⁹
5. The Commission seeks comment on the data formats for the collection of this information.²⁰
6. The Commission seeks comment on whether and how to incorporate data collected on the new Form 477 into this national broadband mapping program.²¹
7. The Commission seeks comment on the utilization of other sources of data that would “improve the output of the broadband mapping program.”²²
8. The Commission seeks comment on “how to maintain the confidentiality of broadband service information.”²³

With regard to question 1, BroadbandCensus.com is very enthusiastic about the utility of creating a highly detailing map of broadband availability.

¹⁶ Further Notice, ¶ 34.

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ Further Notice, ¶ 35.

²⁰ *Id.*

²¹ *Id.*

²² *Id.*

²³ *Id.*

BroadbandCensus.com has no basis to comment about whether the Commission desires to undertake this task for itself.

With regard to question 2, BroadbandCensus.com believes that the most useful steps that the Commission can undertake to provide information to various federal, state and private broadband initiatives is to publicly provide the information that it currently collects on the existing Form 477, and that it will collect on the revised Form 477. Once this data is made public, it can be redeployed and repurposed for use by a range of public and private organizations, including Connected Nation, Inc., BroadbandCensus.com, and the various state-level task forces that are currently considering, or have considered and implemented, broadband data mapping efforts.

With regard to question 3, BroadbandCensus.com has no expertise on this subject. However, BroadbandCensus.com notes that once this basic broadband information is publicly disclosed, a great variety of federal agencies, including the Department of Agriculture, will be able to benefit from such information-sharing.

With regard to question 4, BroadbandCensus.com is sensitive to the argument that broadband providers should not be required to provide address-by-address information to the Commission. If, however, the Commission is determined to collect address-by-address information because the Commission feels that a public purpose is served by its collection, BroadbandCensus.com would urge the Commission also make this data publicly available. As with information about the location of broadband service by ZIP code (and by census tract), the technology types deployed within the carriers' respective service areas and the carriers' promised upload and

download speeds are publicly discoverable on an address-by-address basis by consumers seeking to obtain service. Because of the virtues of crowdsourcing, the information about service areas, technology types and offered speeds that the Commission receives will be far more valuable to individual internet users than it will be to the Commission alone. We therefore urge the public disclosure of this broadband address information.

Question 5 raises considerable technical issues about which BroadbandCensus.com is currently grappling. Publicly available information can be readily shared over the Internet. BroadbandCensus.com aims to work collaboratively with a range of public and private organizations to help develop “best practices” and standards for sharing public information about broadband availability, competition, speeds, prices and quality of service.

To respond to question 6, reference must be made to the pending federal legislation concerning broadband mapping.²⁴ The simple answer is: yes, data collected on the new Form 477 can and should be incorporated into a national broadband mapping program. Again, this can be done most effectively by publicly disclosing the data from the new Form 477. BroadbandCensus.com currently collects data on a ZIP+4 code level.²⁵ There are approximately 30 million ZIP+4 codes, which compares to

²⁴ See Section IV, “Implications of Proposed Federal Legislation,” *infra*.

²⁵ BroadbandCensus.com incorporates data from at least four sources: (1) “bottom-up” data from consumers; (2) publicly-available information about which providers offer broadband service within each ZIP code; (3) data from the Commission about the number of broadband providers within each ZIP code; and (4) local broadband information published by state and county regulators.

approximately 8 million census blocks²⁶ and approximately 200,000 census block groups.²⁷ As noted above, there are approximately 61,000 census tracts and 41,000 ZIP codes.²⁸ The ZIP+4 code level becomes the finest and most discrete unit of analysis, and a unit that can be incorporated upward into blocks, block groups, tracts, ZIP codes, cities, counties and states. The “Broadband Census of America Act,” H.R. 3919, calls for public mapping at the ZIP+4 level.²⁹ The “Broadband Data Improvement Act,” S. 1492, uses the census block level.³⁰ Whether or not either passes will affect the Commission’s efforts on the Further Notice.

With regard to question 7, BroadbandCensus.com invites the Commission, should you undertake to create a “highly detailing map of broadband availability,” to make use of the contents of BroadbandCensus.com.³¹ The Commission is certainly aware of other broadband mapping efforts, and other nation-wide speed test efforts. Should you decide to undertake to create a detailed map, we hope that the Commission will incorporate data from as many different sources as possible.

With regard to question 8, BroadbandCensus.com reiterates that none of the information discussed above is confidential or commercially sensitive, and therefore all of it should be made available to the public.

²⁶ Wikipedia, “Census block,” http://en.wikipedia.org/wiki/Census_block.

²⁷ Wikipedia, “Census block group,” http://en.wikipedia.org/wiki/Census_block_group.

²⁸ See notes 13 and 14, *supra*.

²⁹ The language of H.R. 3919 states that information should be collected based on “each area encompassed by a United States postal zip code of 9 digit level, census tract level, or functional equivalent in which broadband service capability is deployed at that time.” H.R. 3919, Sec. 3(b)(1).

³⁰ S. 1492, Sec. 6(e)(10).

³¹ Under the Creative Commons Attribution Noncommercial License, any noncommercial use (such as use by the Commission) may be made, provided that attribution is provided to BroadbandCensus.com.

IV. IMPLICATIONS OF PROPOSED FEDERAL LEGISLATION

As the Commission is undoubtedly aware, “Broadband Census of America Act,” H.R. 3919, passed the House of Representatives on November 14, 2007. Among other functions, this legislation requires a census of broadband service deployment, to be conducted by the Commission; and a broadband inventory, to be created by the National Telecommunications and Information Agency of the Department of Commerce.³² The broadband inventory map requires that, for each area encompassed by a ZIP+4 code,³³ “each commercial or public provider of broadband service capability within such area” be identified.³⁴ Additionally, the map is to include “each type of technology used to provide broadband service capability within such area,”³⁵ and “which bandwidth service tiers ... are available within such area for each provider of broadband service capability.”³⁶ Individual broadband providers may “opt-out” of the designation of their technology type within the ZIP+4 code, or of the designation of their offered speed tier³⁷, but they may not opt-out of their identification as a provider of broadband service within a particular ZIP+4 code.³⁸

Additionally, the “Broadband Data Improvement Act,” S. 1492, has been introduced in the Senate, and has passed the Senate Commerce Committee. While this bill does

³² H.R. 3919, Sec. 2, Sec. 3(a).

³³ See note 29, *supra*.

³⁴ *Id.*, Sec. 3(b)(1)(A).

³⁵ *Id.*, Sec. 3(b)(1)(B)(i).

³⁶ *Id.*, Sec. 3(b)(1)(B)(ii).

³⁷ *Id.*, Sec. 3(f)(5).

³⁸ Sec. 3(g) makes clear that the NTIA’s obligation to protect “proprietary information” is not an exception from the requirement that the NTIA produce publicly available and interactive broadband maps utilizing the information about carriers and the ZIP+4 codes in which they operate.

not contemplate a federal broadband map, it does require that states receiving federal funds under the bill “create ... a geographic inventory map of broadband service”³⁹ through “geographic information system mapping of service availability at the census block level.”⁴⁰

H.R. 3919 would require public disclosure of information that the Commission has declared that it will collect through the new Form 477 form. This disclosure would take place through the NTIA’s broadband inventory map. Information to be disclosed includes, at a minimum, the names of the broadband providers within each ZIP+4 code. S. 1412 would not require this level of disclosure, although it does contemplate mapping broadband availability by census blocks.

If Congress fails to act, or if Congress enacts S. 1412 but not H.R. 3919, a greater responsibility would fall upon the Commission to make broadband data at the census tract level available to the public. The Commission should do this, and release the names of the broadband providers within each ZIP+4 code, as well as the technology types and speed tiers of each carrier. In the alternative, if H.R. 3919 does not pass and, if the Commission does not agree to publicly disclose the technology types and speed tiers of broadband providers within each census tract, BroadbandCensus.com urges the Commission to adopt the language of H.R. 3919 on your own authority, and disclose technology types and speed tiers subject to an opt-out by broadband providers.

³⁹ S. 1492, Sec. (10).

⁴⁰ S. 1492, Sec. (10)(A).

V. CONCLUSION

Because the importance of conducting a national Broadband Census that includes consumer-focused information about broadband competition, broadband speeds and broadband prices, and because this information is not commercially sensitive, the Commission should disclose it and share it with the public.

Respectfully submitted,

BroadbandCensus.com

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